

Appl. No.: 10/632,980
Amdt. Dated: __ July 2006
Reply to Office Action dated 03/02/2006

Remarks/Arguments

In the Office Action mailed 03/02/2006 the Examiner has rejected the claims in the case and stated that he continues to maintain the position that applicants' claims are an obvious engineering variation to Irvine '973 as modified, namely that it would have been obvious to have provided a mating end cap such as taught and claimed by applicant on the device of Irvine '973 to secure the pads.

Before considering the specific grounds for rejection stated in the Office Action, and the manner in which the present Amendment overcomes such grounds for rejection, it may be expedient to briefly summarize applicants' invention.

Specifically, the invention comprises a longitudinal extending brake shoe having a continuous planar flanged surface defining a continuous recess, and a truncated end. Multiple unitary brake pads are slidably received through the truncated end and along the flanged surface in sequential abutting relationship in the brake shoe. Selected ones of said brake pads are composed of different braking compounds for imparting a different braking characteristic to said brake pad assembly. The brake pads are interchangeable within the brake shoe as desired to effect different braking characteristics of the brake pad assembly, and have an overlapping end and an underlapping end with adjacent pads mated with the overlapping end over said underlapping end, the overlapping end bearing down on the underlapping end of the adjacent pads preventing pull out of said pads from wheel rim movement pressure. An end cap closure for complementary mating with the truncated end for securing said brake pads within said brake shoe is provided, the end cap configured with a complementary flanged surface to provide a continuous planar flanged recess completely around the perimeter of the combination of said brake shoe and said end cap for receiving and securing the brake pads.

The claimed combination provides a unique and much better performing assembly since it provides interchangeable brake pads of different braking characteristics while configured to prevent pull out of the pads resulting from wheel rim movement pressure. This pressure creates a "ripple" effect on the brake pads which unless contained causes the brake pads to peel out of the brake shoes. Prior art open ended brake shoes with inadequate holding means, such as is taught in the references, tend to peel out of the brake shoe. For instance, this complicates the holding brake pad and holding screw configuration of brake shoes such as taught in Irvine as in manufacture the pads must be composed of harder material with its attendant effect on variability of design to combat the ripple effect. The retainer means of Smith and Penny, if applied to bicycle brake pads would likewise be inadequate.

As further example, in the invention of Everett '863 with its pin only design it is necessary to use harder pad material. In contrast, the complementary end cap of the present invention suppresses the ripple effect not only to prevent pull out of the pads but also to effect better stopping power in that more complete surface contact is maintained in the absence of the ripple effect. Further,

in applicants' inventive brake shoe assembly softer brake pad material, with attendant design variability, is utilized.

Additionally, when the brake assembly is not installed correctly, which is often the case, there is an increased tendency for the brake pads to pull out. This problem is obviated because of the continuous planar flanged surface of applicants' brake shoe.

In now addressing the specific grounds for rejection stated in the Office Action, in making his above observation the Examiner has exercised an impermissibly broad interpretation of the references as a way of denying allowance of the claims. This is nothing more than speculation on the part of the Examiner, inasmuch as there is nothing within the four corners of the references, or combination thereof, which teaches or suggests such an interpretation. The Examiner has continued to violate the holding in Hodosh v. Block_Drug Co., Inc." (Fed. Cir. 1986) 229 USPQ 182 wherein it was held that:

1) the claimed invention must be considered as a whole... (though the difference between claimed invention and prior art may seem slight, it may also have been the key to advancement of the art);

(2) the references must be considered as a whole and suggest the desirability and thus the obviousness of making the combination .. ;

(3) the references must be viewed without the benefit of hindsight vision afforded by the claimed invention .. ;

It is apparent that the Examiner has not considered the claimed invention as a whole but has merely seized upon the similarities in the references and combined them with the totally inapplicable end holding means of Smith or Penny in the attempt to show obviousness. The references were not properly considered by the Examiner since none of the references, or the combination thereof, suggested the desirability and thus the obviousness of making a combination as put forth by the Examiner. The Examiner could only have viewed the references with the benefit of hindsight afforded by the present invention since no other reference teaches or suggests applicant's claimed end cap.

Applicants further respectfully traverse the Examiner's position in that he calls attention in Irvine to "brake pad means 28 and the pad at 12" whereas Irvine merely disclosing a retaining screw 38 received into a notch 16 in the single brake pad 12. This screw retainer means is certainly not applicant's claimed end cap with its mating grooved protrusions interlocking with the brake pads. Further, there is no teaching or suggestion of an end cap such as disclosed and claimed by the applicants.

Likewise, Smith merely discloses (column 1, lines 36-42) a simple concept of a bar 9 projecting through slots in the holder sides, bent at one end to restrict movement of that end through the first slot, and having an aperture at the opposite end to receive a pin 10 to prevent removal of the bar 9 after the other end has projected through the second slot. This is a simple rudimentary concept that has no bearing on the end cap of applicants with its mating grooved protrusions interlocking with the brake pads. It is abundantly clear that combining this simple barrier with Irvine's screw retainer would not result in applicants' end cap, nor is there any suggestion that would make it obvious to transform the combination of Irvine's retainer screw 38 with Smith's bar 9 to result in applicants' end cap. Smith's bar 9 can only indicate that some sort of end barrier could be conceived, there being no suggestion of applicant's taught and claimed end cap.

Further, Penny merely discloses (column 2, lines 38-41) a simple barrier comprising a retaining rod *f* passing transversely through the end of the shoe body. Likewise, the rod *f* of Penny can only indicate that some sort of end barrier could be conceived, there being no suggestion of applicant's end cap.

Thus it is seen that none of the cited art, or the combination thereof, either teaches or remotely suggests an end cap at all, much less the end cap as taught and claimed by the applicant. That is, what information is there in the references, that absent applicant's disclosure, would make applicant's end cap obvious. The conclusion must certainly be that there is none, and accordingly the end cap of applicant is not obvious and is patentable over the references.

The Examiner has further rejected the claims in the case under 35 U.S.C 103(a) as being unpatentable over Irvine '973 in view of Everett '959 and Smith '747 or Penny '891, and under the doctrine of obvious-type double patenting as unpatentable over claims 1-16 of U.S. Patent No. 6,892,863 to Everett in view of Smith '747. He has further objected to the specification as failing to provide proper antecedent basis for the claimed subject matter in that the newly added limitations to the claims were not found in the specification as originally filed.

In rejecting the claims under 35 U.S.C 103(a) as being unpatentable over Irvine '973 in view of Everett '959 and Smith '747 or Penny '891 the Examiner has stated that Irvine shows in figure 3 a brake pad similar to applicants, that Everett '959 is relied upon to show brake pads having different compounds for desired breaking and wear characteristics, and that Smith and Penny are relied upon to show it is known to make a brake pad or shoe from multiple parts.

However, even if the "similar" single brake shoe of Irvine, with its retaining screw 38 received into a brake pad notch 16, is made multiple and of different compounds, and the bar of Smith or the bolt of Penny added, there still would not result applicant's claimed invention including the claimed end cap. Since none of these references teach or suggest an end cap, only a barrier, applicants claimed invention cannot be obvious from these references.

In rejecting the claims under the doctrine of obvious-type double patenting, the Examiner states that Everett '863 shows most of the features of the present application, lacking the particulars of the end cap and cites Smith to teach it is known to provide a removal closure means. Smith only teaches that it is known to use the retainer bar 9 with its latch pin 10 as previously discussed. It does not therefore teach or suggest all closure means that may be envisioned, such as in applicants' invention. Further the Examiner's suggested combination results only in "most of the features of the present application" with a retainer bar, the combination neither teaching nor remotely suggesting the invention of the applicants. The Examiner has thus taken prior art that is "similar" or "shows most of the features of the present application", combined these with a retainer bar or bolt, and made the stretch that applicants invention is obvious from the combination even though the combination neither teaches nor remotely suggests the invention of the applicants. This reasoning does not support a proper rejection under 35 U.S.C 103(a).

The Examiner has cited the reference of Huang '308 as showing in figure 2 a similar device to that shown in Irvine. The above argument against Irvine applies equally well to that of Huang's screw retainer, i.e., it does not teach or suggest applicants claimed invention.

The Examiner has objected to the specification as failing to provide proper antecedent basis for the claimed subject matter in that the newly added limitations to the claims were not found in the specification as originally filed. Applicant has reviewed the claims as amended and submits that these claims are free of this objection.

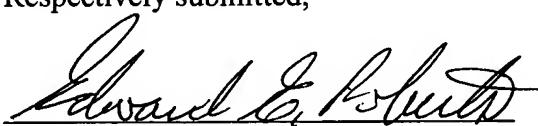
It is thus obvious that the combination of references as suggested by the Examiner would not result in applicant's claimed invention nor do they include teachings to make applicant's invention obvious therefrom. There is no nexus in the combination of the references that their teachings would be capable of suggesting to one skilled in the art, without exercising inventive faculties, their combination in a manner disclosed in the claimed structure. Consequently, it is submitted that the conclusions reached by the Examiner in relating the references to show the applicants' invention to be obvious is a product of speculation and hindsight, and an erroneous piecemeal application of the references.

The claims remaining in the case, that is, claims 1-6 and 8-20, have been amended, directly or indirectly, in accordance with the above discussion. Claim 7 has been canceled. It is respectfully requested that the Examiner's rejections be reconsidered, the claims allowed, and the case passed to issue.

It is hereby certified that this response to the outstanding Office Action is being deposited with the United States Postal Service, postage prepaid, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on 3 July 2006.

Respectively submitted,

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